

CLAIM(S)


What is claimed is :

- 5 1. A process for multilayer coating of substrates which comprises
a) applying a filler layer of a filler coating composition to a substrate,
b) curing the resultant filler layer by irradiation with high energy
radiation and
c) applying a top coat layer to the cured filler layer and curing the top
coat layer,
10 whereby the filler coating composition comprises
A) at least one binder capable of free-radical polymerization having
fewer than three olefinic double bonds per molecule,
B) at least one ester of alpha,beta-olefinically unsaturated
monocarboxylic acids capable of free-radical polymerization having
15 one olefinic double bond per molecule and
C) at least one compound having at least one phosphoric acid group.
- 20 2. The process according to claim 1, wherein the top coat layer
comprises a colored and/or special effect base coat coating composition and a
transparent clear coat coating composition applied over the base coat coating
composition.
- 25 3. The process according to claim 1, wherein the top coat layer
comprises a pigmented one-layer top coat coating composition.
- 30 4. The process according to claim 1, wherein the filler coating
composition comprises 10-80 weight-% of component A) and 20-90 wt.% of
component B) and wherein the weight percentages of component A) and B) add
up to 100 wt.%.
5. The process according to claim 1, wherein the filler coating
composition comprises 1-15 weight-% of component C), relative to the total
quantity of the filler coating composition.
- 35 6. The process according to claim 1, wherein the filler coating
composition comprises as component A) at least one binder capable of free-
radical polymerization having 1.5 to 2.5 olefinic double bonds per molecule.

7. The process according to claim 1, wherein the filler coating composition comprises as component B) at least one (meth)acrylic acid ester with cycloaliphatic alcohols.

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8. The process according to claim 7, wherein the filler coating composition comprises as component B) isobornyl (meth)acrylate.


 9. The process according to claim 1, wherein the filler coating composition comprises as component C) at least one compound having at least one phosphoric acid group and at least one free-radically olefinic double bond.

10. The process according to claim 9, wherein the filler coating composition comprises as component C) at least one (meth)acryloyl-modified phosphoric acid derivative.

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11. The process according to claim 1, wherein it is a process for repair coating of substrates.

20 12. The process according to claim 1, wherein it is a process for applying automotive, automotive part and /or industrial coatings.


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